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I provided 14 of 28 Burrowing Owl pairs with extra food during the laying and incubation periods in 1992 to test the hypothesis that food availability limits reproduction. Supplementally-fed owls initiated laying 2 to 3 days earlier and laid approximately one more egg than did controls. Fed birds also tended to lay larger eggs than unfed birds. Hatchability did not differ between the two groups, but since food-supplemented pairs had larger clutches, they hatched more young. I conclude that food supply restricts egg, clutch, and brood size in breeding Burrowing Owls. These results could help explain the poor reproductive performance of owls nesting in areas where human activity may reduce habitat quality in terms of prey availability.

KESTREL HABITAT USE AND PESTICIDE EXPOSURE DURING WINTER IN AGRICULTURAL AREAS OF THE CENTRAL VALLEY OF CALIFORNIA

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Habitat use and home range information on wintering American kestrels (*Falco sparverius*) in California was collected for the purposes of pesticide exposure assessment and comparison with other raptor species under study. During the 1992 dormant spray season (January–February), thirty American kestrels were trapped in a 50 square mile area of heavy agricultural use in the Central Valley. All kestrels were foot-rinsed and blood-sampled for pesticide residues and plasma cholinesterase; eighteen birds were fitted with radiotransmitters prior to release. Tagged birds were monitored on a daily basis throughout the spray season and on a weekly basis until birds left the area or transmitter batteries ceased functioning. In addition to habitat use, data were gathered for roosting behavior, response of the birds to their transmitters (mounted in two different styles), transmitter and harness wear, and mortality. Five radio-tagged birds died during the study; four of these were probable predations, possibly by Cooper's hawks, while the fifth carcass was not retrievable. Three methods of home range calculations were compared using the GIS program CAMRIS: minimum convex polygon, density surface, and fixed buffer zones around observation points. Based on home range size and patchiness, and degree of usage of different habitat types suggested by each method, density surface was chosen as the most accurate and realistic type of calculation. Habitat use data suggested that open pasture or fallow field areas are of primary importance but that other types of agricultural habitat (e.g., orchards, vineyards, dairy, and poultry operations) are also utilized. Preliminary residue and biochemical analyses suggest low level exposure of kestrels to pesticides as a result of dormant spraying. Laboratory toxicological and behavioral studies on captive kestrels are underway to improve understanding of pesticide hazards to these and other wild raptors. Supported by the Almond Board of California.

FILMS AND VIDEOS

FIELD GUIDE TO THE RAPTORS OF THE WESTERN PALEARCTIC

CLARK, W.S. *4554 Shetland Green Rd., Alexandria, VA 22312*. J. SCHMITT. *11609 Alburtis Ave., Norwalk, CA 90650*

We are preparing a field guide to the raptors of Europe, North Africa, and the Middle East (Western Palearctic) for publication by Oxford University Press. The guide will consist of 48 color plates, an extensive text for each of the 49 species that occur there, and many color photographs. We will show slides of perched and flying raptors and the first eight color plates. The text will be similar in format to that in the North American raptor guide, coauthored by William Clark, but it will include a section on molt.

A PHOTOGRAPHIC GUIDE TO NORTH AMERICAN DIURNAL RAPTORS

CLARK, W.S. *4554 Shetland Green Rd., Alexandria, VA 22312*. B.K. WHEELER. *P.O. Box 943, Longmont, CO 80501*

We are preparing a photo guide that will include 360 color photos showing all plumages of North American diurnal raptors, both perched and flying. It is intended as a companion to our raptor field guide, published in the Peterson series, and will be published by Academic Press. Each species account will consist of a short text and extensive photo captions for every photo. We will show a sample of photos to demonstrate the quality (closeness, sharpness, lighting) of the photos to be used. The complete set of photos of the Bald Eagle will be shown. These will show the field marks to correctly age all Bald Eagles, both in flight and perched.

SKYDIVING WITH AN IMMATURE MALE PEREGRINE

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We attempted to determine the terminal diving speed of a male peregrine by training the peregrine to stoop after a skydiver in free fall trailing a lure.